

1010 .375

Work Order ID 70027



Page 1

Wednesday, May 25, 2011 1:01:46 PM

Item ID: D3943-7

Accept



Setup Start



Revision ID:

Stop



Item Name: Stud

Start Date: 5/25/2011 Start Qty: 16.00

Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 16.00

Customer:

Reference:

Approvals: Process Plan: CL Date: 11/05/25 Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

Draw Nbr

Revision Nbr

D3943

C

100

0.00



Hardinge

Hardinge CNC Lathe Small

Memo

0.00

TURN AS PER DWG AND FOLIO FA864

FOLIO REV: C
DWG REV: C

11/05/27

2-DEBURR AS REQUIRED

*****TAP DRILL FOR 1/4" IN CENTER OF PART*****

30 ϕ

110

QC2- Inspect parts off machine FAI/FAIB

0.00



QC

Quality Control

Memo

0.00

11/05/27

30 ϕ

| W/O: | | WORK ORDER CHANGES | | | | | | |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action | | Section B | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | | Sign & Date | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

NOTE: Date & initial all entries

Work Order ID 70027

Wednesday, May 25, 2011 1:01:46 PM



Page 2

Item ID: D3943-7

Accept



Setup Start



Revision ID:

Stop



Item Name: Stud

Start Date: 5/25/2011 Start Qty: 16.00



Cust Item ID:

Required Date: 6/10/2011 Req'd Qty: 16.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____

Run Start



QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Stop



| Sequence ID/ Work Center ID | Operation Description | Set Up/ Run Hours | Tool ID | Tool # | Plan Code | Accept Qty | Reject Qty | Reject Number | Insp. Stamp |
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|
|--------------------------------|--------------------------|----------------------|---------|--------|--------------|---------------|---------------|------------------|----------------|

120

QC8- Inspect parts - second check

0.00

2 11.5.27

30

6

QC

Memo

0.00

Quality Control

130

Identify as per dwg & Stock Location: 95

0.00

7/15/30

(30) 5

Packaging

Memo

0.00

Packaging

140

QC21- Final Inspection - Work Order Release

0.00

- 11/5/31 2A

QC

Memo

0.00

Quality Control

11-05-30
(30)

| W/O: | | WORK ORDER CHANGES | | | | | | |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action | | Section B | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | | Sign & Date | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

NOTE: Date & initial all entries

Picklist Print

Wednesday, May 25, 2011 1:01:44 PM

Page 1

Work Order ID: 70027

Parent Item: D3943-7

Parent Item Name: Stud




Start Date: 5/25/2011

Required Date: 6/10/2011

Start Qty: 16.00

Required Qty: 16.00

Comments: Est Rev:A New Issue 09-06-03 JLM Verified By:EC IPP Rev:B as per
dwg REV.C DD 10.02.22 verified by:EC

| Component Item ID/ Item Name | Replacement Item ID | Mfg/ Purch | Bin Item | Primary Location | Last Location | Route Seq ID | Unit of Measure | Qty on Hand | Qty per Kit | Total Qty | Qty Issued | Date Issued | Status |
|--|------------------------|---------------|-------------|---------------------|------------------|-----------------|--------------------|----------------|-------------|--------------|---------------|----------------|--------|
| M1010R0.375  ROUND BAR .375 | | Purchased | No | | | 100 | f | 0.7800 | 0.02 | 0.32 | | | |

Location

Loc Qty

Loc Code

MAT038

0.78

112886

0.78

92 27

11/5/27

| W/O: | | WORK ORDER CHANGES | | | | | | |
|------|------|--------------------|--|----|------|-----|-------------------------------------|--------------------------|
| DATE | STEP | PROCEDURE CHANGE | | By | Date | Qty | Approval Chief Eng / Prod Mgr | Approval QC Inspector |
| | | | | | | | | |
| | | | | | | | | |

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

| NCR: | | WORK ORDER NON-CONFORMANCE (NCR) | | | | | | | |
|------|------|----------------------------------|----------------------|---------------------------------|-----------|----------------|---------------------------|-----------------------|--------------------------|
| DATE | STEP | Description of NC Section A | Corrective Action | | Section B | | Verification Section C | Approval Chief Eng | Approval QC Inspector |
| | | | Initial Chief Eng | Action Description Chief Eng | | Sign & Date | | | |
| | | | | | | | | | |
| | | | | | | | | | |
| | | | | | | | | | |

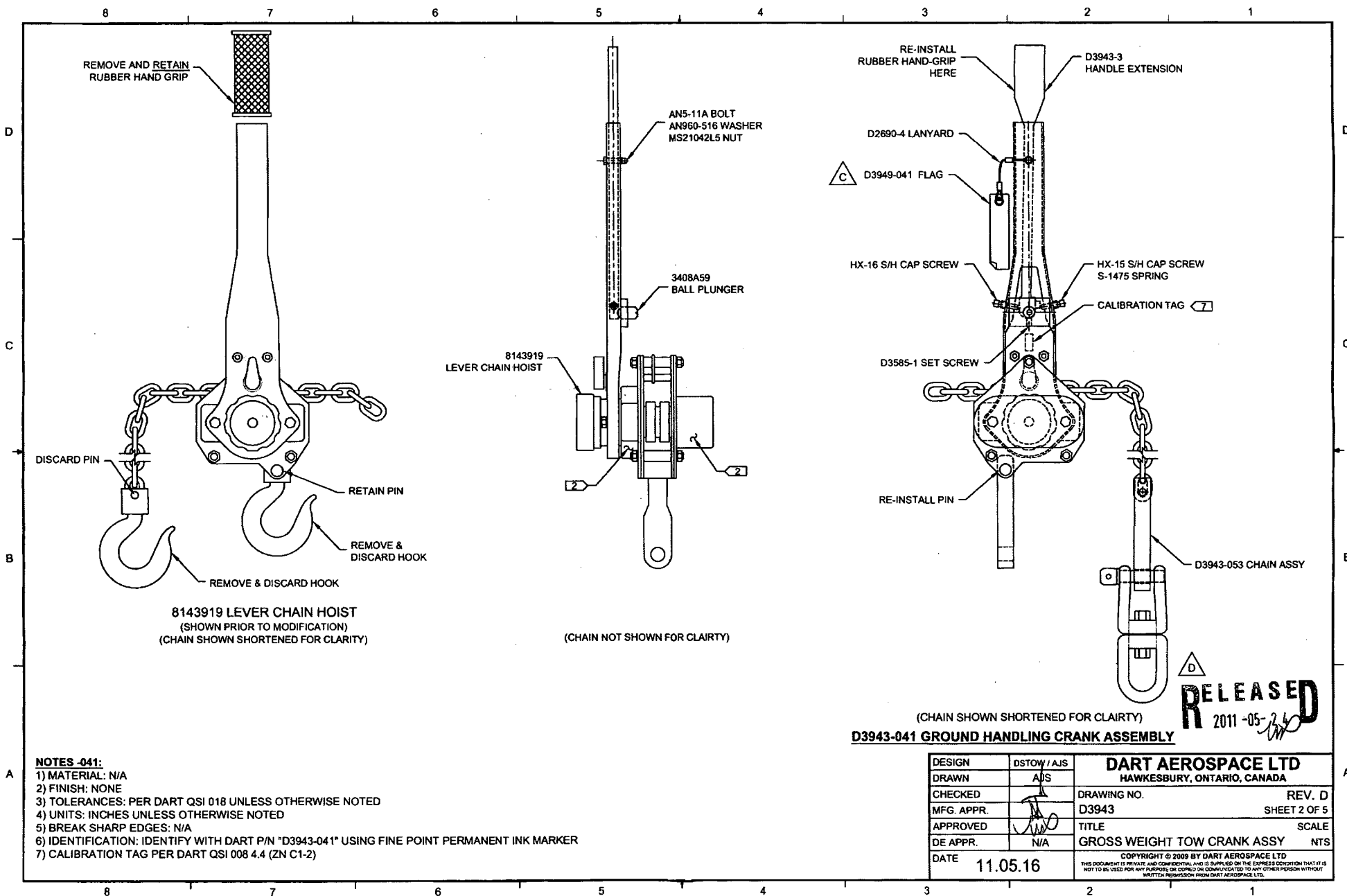
NOTE: Date & initial all entries

| ITEM No. | QTY -041 | QTY -051 | QTY -053 | PART NUMBER | DESCRIPTION | PREFERED SUPPLIER |
|----------|----------|----------|----------|-------------|--|---------------------------------------|
| 1 | X | | | D3943-041 | GROUND HANDLING CRANK ASSEMBLY | |
| 5 | 1 | X | | D3943-051 | HANDLE ASSEMBLY | |
| 6 | 1 | | X | D3943-053 | CHAIN ASSEMBLY | |
| 11 | | 1 | | D3943-1 | HANDLE | M/F HANDLE FROM DIS-ASSEMBLED ITEM 39 |
| 12 | 1 | | | D3943-3 | HANDLE EXTENSION | |
| 13 | | 1 | | D3943-5 | PLATE | |
| 14 | | 2 | | D3943-7 | STUD | |
| 15 | | | 1 | D3943-9 | CHAIN | USE CHAIN SUPPLIED WITH ITEM 39 |
| 16 | | | 1 | D4405-1 | EYE AND FORK SWIVEL | |
| 21 | 1 | | | D2690-4 | LANYARD | |
| 22 | 1 | | | D3585-1 | SET SCREW | |
| 23 | 1 | | | D3949-041 | REMOVE BEFORE FLIGHT FLAG | |
| 24 | | | 1 | D3954-5 | CHAIN LUG | |
| 25 | 1 | | | D3954-7 | RATCHET LUG | |
| 26 | | | 1 | D3954-9 | GWT CHAIN PIN | |
| 31 | 1 | | | AN5-11A | BOLT | |
| 32 | 1 | | | AN960-516 | WASHER | |
| 33 | 1 | | | MS21042L5 | NUT | |
| 39 | 1 | | | 8143919 | LEVER CHAIN HOIST (POWER FIST) | PRINCESS AUTO / 4000 lbs CAPACITY |
| 51 | 1 | | | S-1475 | SPRING | REID SUPPLY |
| 52 | 1 | | | 3408A59 | BALL PLUNGER | McMASTER CARR |
| 53 | 1 | | | HX-15 | SOCKET HEAD CAP SCREW 1/2-20 UNC X 0.75 LG | HASKINS |
| 54 | 1 | | | HX-16 | SOCKET HEAD CAP SCREW 1/2-20 UNC X 1.0 LG | HASKINS |

CL11/05/25
W10. 70027

RELEASED
2011-05-24
WJP

| | | | |
|------------|---|---|--------------|
| D | SHT 1 PL, ITEMS 51-54 RENUMBERED SEE PREV. REV. FOR DETAILS, ITEM 16 ADDED (VIEWS UPDATED). SHT 2 ZN D3 FLAG RELOCATED. SHT 3 ZONE D3, Ø0.12 HOLE DELETED. (SEE MCR 11-435) | AJS | 11.05.16 |
| C | RMV FINISH -041 (ZN A8-2), ADD NEW FINISH -051/-053/-1/-3 (A8-3/-4/-5), ADD CALIBRATION (A8-2), (1) HX-16 WAS HX-15 (B3-1, C3-1), PAR 10-001 | CP | 10.01.26 |
| B | SHT 1 PL, ITEM 31 WAS AN4-10A, ITEM 32 WAS AN960-416, ITEM 33 WAS MS21042-4, ITEM 43 WAS 0.75 LG. SHEETS 2 - 5 NOTES: FINISH FOR ALL COMPONENTS NOW YELLOW SPRAY PAINT. | AJS | 09.10.15 |
| A | NEW ISSUE | AJS | 09.05.13 |
| REV. | DESCRIPTION | BY | DATE |
| DESIGN | DSTOW / AJS | DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA | |
| DRAWN | AJS | DRAWING NO. | REV. D |
| CHECKED | | D3943 | SHEET 1 OF 5 |
| MFG. APPR. | | TITLE | SCALE |
| APPROVED | | GROSS WEIGHT-TOW CRANK ASSY | NTS |
| DE APPR. | | COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD | |
| DATE | 11.05.16 | | |



- NOTES -041:**
- 1) MATERIAL: N/A
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: N/A
 - 6) IDENTIFICATION: IDENTIFY WITH DART P/N "D3943-041" USING FINE POINT PERMANENT INK MARKER
 - 7) CALIBRATION TAG PER DART QSI 008 4.4 (ZN C1-2)

D3943-1 HANDLE

2 PL

9.75

2.00

Ø0.31
THRU

D3943-7 STUD
2 PL

THREAD $\frac{1}{4}$ -20 UNC-2B
2 PL

THREAD $\frac{1}{4}$ -20 UNC-2B
THRU

VIEW A-A A5-3
(SCALE 2X) B5-3

D3943-5 PLATE

2 PL

9.38

A B1-3

A B1-3

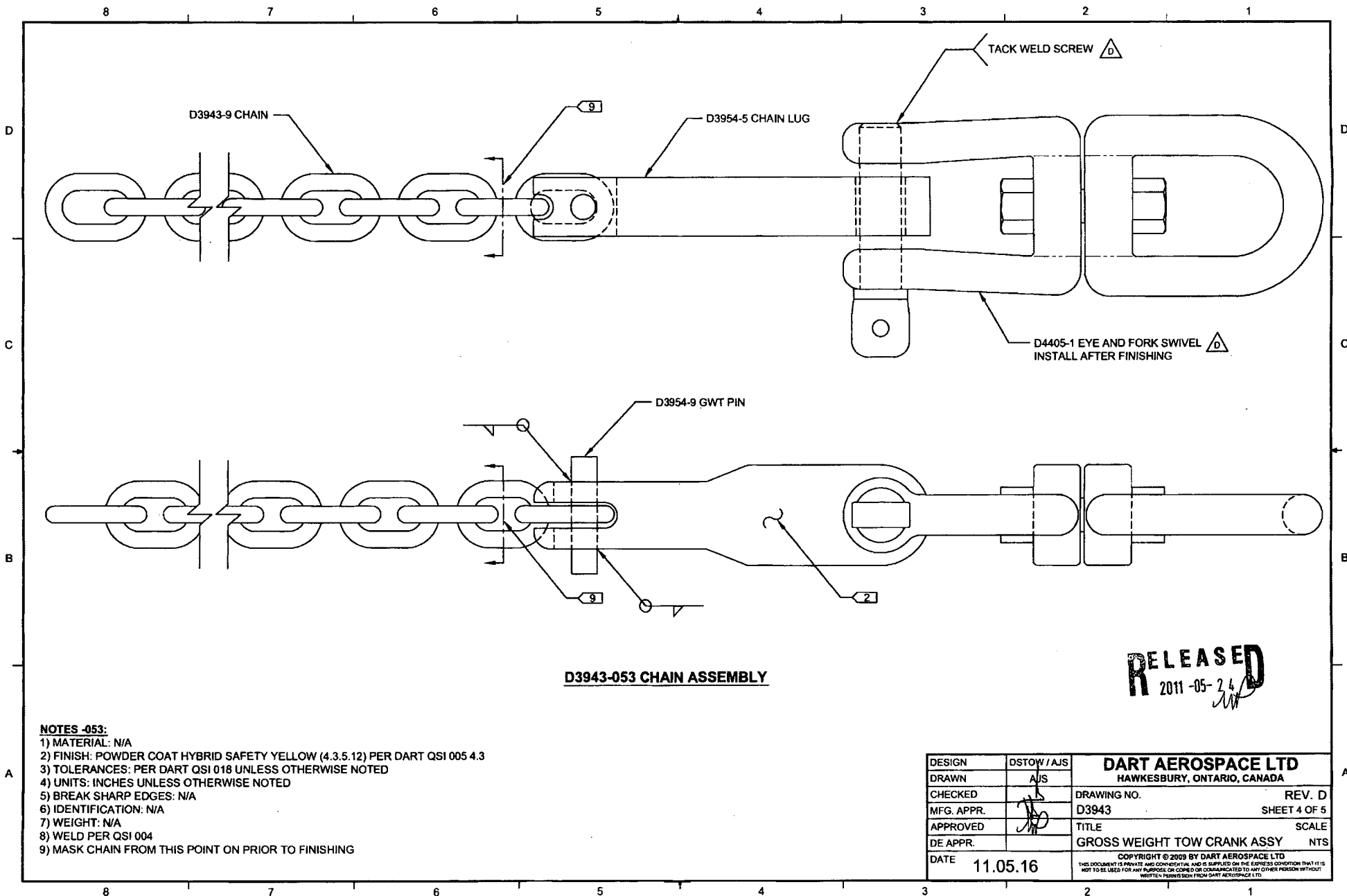
D3943-051 HANDLE ASSEMBLY

NOTES -051:

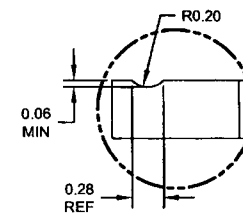
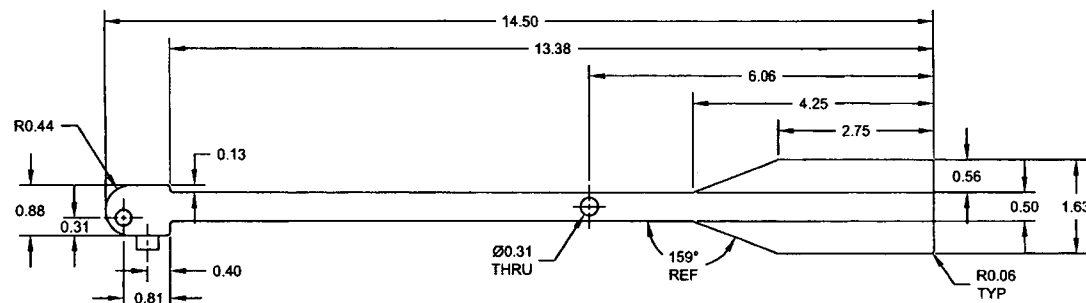
- 1) MATERIAL : N/A
- 2) FINISH: POWDER COAT HYBRID SAFETY YELLOW (4.3.5.12) PER DART QSI 005 4.3
- 3) TOLERANCES: X.XX DIMENSIONS +/- 0.06 ALL OTHERS
PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: N/A
- 6) IDENTIFICATION: N/A
- 7) MASK ALL THREADS PRIOR TO FINISHING

| | | | | | |
|------------|--|---|--|-----------------------------|--|
| DESIGN | | DSTOW / AJS | | DART AEROSPACE LTD | |
| DRAWN | | AJS | | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | | DRAWING NO. | | REV. D | |
| MFG. APPR. | | D3943 | | SHEET 3 OF 5 | |
| APPROVED | | TITLE | | SCALE | |
| DE APPR. | | GROSS WEIGHT TOW CRANK ASSY | | NT | |
| DATE | | 11.05.16 | | | |
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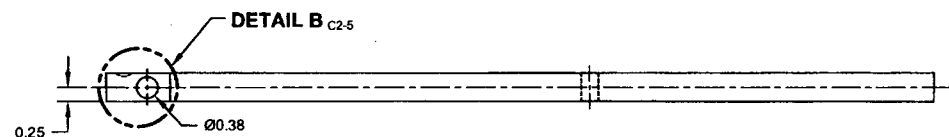
RELEASED
2011-05-24



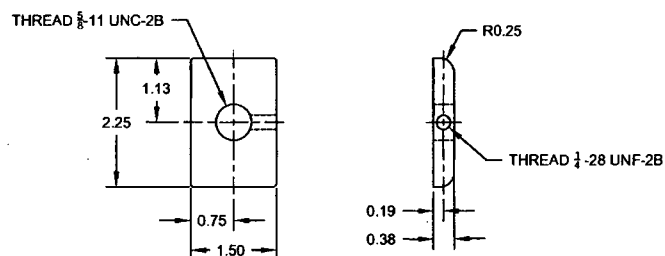
8 7 6 5 4 3 2 1



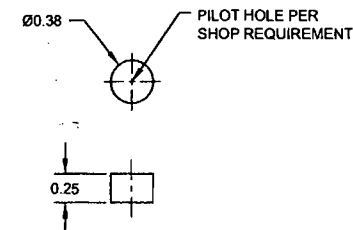
DETAIL B-B
(DIMPLE DETAIL)
(SCALE 2X)



D3943-3 HANDLE EXTENSION



D3943-5 PLATE



D3943-7 STUD
(SCALE 2X)

NOTES -11/-13:

1) MATERIAL -3 & -5: MILD STEEL, SHEET
AISI 1010-1025 OR ASTM A36/A366/A1008
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-S

OR : MILD STEEL, BAR
AISI 1010-1025 OR ASTM A36/A366/A569/A570
OR CSA G40-21, 38W/44W/50W/60W/70W
REF DART SPEC M1010-B

-7: MILD STEEL, ROUND BAR
AISI 1018-1025
PER MIL-S-7097
REF DART SPEC M1018-R

- 2) FINISH: POWDER COAT HYBRID SAFETY YELLOW (4.3.5.12) PER DART QSI 005 4.3
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: N/A

| | | | |
|------------|-------------|--|--------------|
| DESIGN | DSTOW / AJS | DART AEROSPACE LTD | |
| DRAWN | AJS | HAWKESBURY, ONTARIO, CANADA | |
| CHECKED | | DRAWING NO. | REV. D |
| MFG. APPR. | | D3943 | SHEET 5 OF 5 |
| APPROVED | | TITLE | SCALE |
| DE APPR. | | GROSS WEIGHT TOW CRANK ASSY | NTS |
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8 7 6 5 4 3 2 1

